

Police Aviation News

©Police Aviation Research

Farnborough International

IPAR



Stepping up

to the

Agusta Grand?

www.policeaviationnews.com

PAN – [POLICE AVIATION NEWS](#) is published monthly by
INTERNATIONAL POLICE AVIATION RESEARCH
7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK
+44 1992 714162
[Editor](#) Bryn Elliott

Digital Downlink
A powerful ally
Straight to the point
Eurocopter in the UK
Power in a box
Turning the blades
Dubai in December
Geneva in October

Emergency Services On-line resource
Airborne Law Enforcement Association
European Law Enforcement Association

[BMS - CAM](#)
[Flir Systems](#)
[Honeywell Observer](#)
[McAlpine Helicopters](#)
[Powervamp](#)
[Turbomeca](#)
[Dubai Helishow](#)
[HeliMRO](#)
[Police Aviation News](#)
[ALEA](#)
[P.A.C.E.](#)

Farnborough, England July 19 - 26.

It may be England and is often reported to have lost its way and be dying on its feet but this International Air Show remains a consistent attraction to the Worlds aircraft and systems purchasers. The fact that the Pentagon sent nearly three dozen senior officials, including twelve generals or admirals and that US industry selected the venue for a significant number of new product announcements – including a smattering from Bell Helicopter and Sikorsky – was surprising.

Except of course that in the political arena Farnborough is a sort of ‘pay-back’ for services rendered - contrasting with the situation at the Paris Show last year when US participation was ‘limited’ owing to the political effect of the war in Iraq.

Over \$3billion in orders and options were announced on day one at Farnborough International 2004 and the following days also had their highlights. Admittedly most of this was an airline head to head between Airbus and Boeing and the rest military matters well set aside from the normal subject matter of PAN.

That same opening day included a Red Arrows fly-past to signal a welcome to the first of an expected 300,000 visitors. Over 200 aircraft were to participate in a show that saw exhibitor numbers increasing to 1360 up from 1240 in 2002.

In addition to civil airliners curving through the sky the two and a half hours of flying display included aerobatic displays from an, Airbus Tanker, Rockwell B1B Lancer, Saab Gripen, Lockheed Martin F-16 and both British and Italian Air Force Tornado aircraft.

The daily overflight by the venerable Boeing B52H Stratofortress bomber included one that managed to get lost and displayed slightly off-beam at another airfield. It might be thought that a near deserted private executive airfield and one with a crowded flightline would display some visual differences – and that discounts 10km difference in the GPS. I think it may be time to take cover – or change sides!

Day one did not start off auspiciously. A belated desire to heed the lessons of 9-11 resulted in a major change in the security arrangements at the venue. Last time [2002] there had been token changes in additional security that worked well enough but one of the abiding pleasures of the venue has always been that car parking was on site. Alas on-site parking was it seems severely restricted to just hundreds of limousines and people carriers that presumably had some claim to being ‘safe.’

At a stroke, and seemingly without telling a soul, virtually all vehicle parking on site was halted. The result was chaos. All the exhibitors turned up with their minds set on the time it took to park and then walk to the exhibit hall in plenty of time. Unfortunately the on-site parking was now a mile way and required a two mile detour to get on site by red double-decker bus. At least that was an appropriate touch! And then there were the queues to pass into the airport style security checks ... The result was that many exhibitors were late getting into the site and on their stands, many of them at least half an hour.



It got better during the week of course exhibitors got in earlier and they finally abandoned x-raying the bags using the all too few security posts. Certainly the provision of sufficient security is an area to ponder for 2006.

The stars of the show were not necessarily those of interest to PAN readers, but a likely candidate would be the AgustaWestland Grand. A variant of the Agusta A109E Power helicopter. Days when a mere helicopter could even vie for consideration, as a star of so large and important a show is few!

Virtually beside the entrance the first manufacturers sites that most visitors encountered were locally based **QinetiQ** and the multi-National **AgustaWestland**.



AgustaWestland invited its visitors to view its range within the now customary self contained AgustaWestland Pavilion. The company was showing the complete range of helicopters, all displayed in one location alongside the pavilion. Military helicopters on display will included the 15-ton three-engine EH101, the Apache AH Mk.1 and A129 attack helicopters, and both naval and multi-role variants of the Super Lynx 300 helicopter. Representing the civil product line were the A119 Koala and A109 Power helicopters, while Bell/Agusta Aerospace Company, which are co-located with AgustaWestland showed the AB139 all new medium twin helicopter. To ensure the visitors could not miss seeing the current flagship product the US101, the American version of the EH101, featured in the Lockheed Martin Pavilion.

The NH90, the 11-ton multi-national helicopter programme managed through NHIndustries, featured in the NHI Chalet.



AgustaWestland



Located alongside the AgustaWestland pavilion the Capabilities Pavilion showed and demonstrated its latest training and customer support technologies and services.

Although it was not officially unveiled in the form of a mock-up until day 2, the Grand variant took pride of place in the centre of the line-up. The Grand is no secret development, a new larger version of the basic A109E Power has been whispered about for many months and it has already flown.

Agusta 109



Grand EMS



On first encountering the newcomer you would be hard pressed to spot the differences between it and the Power. The differences are subtle and mainly performance related. The Power is a 6/7 seat 2.9 tonne machine but the Grand steps the weight up to 3.3 tonnes. AgustaWestland now class it as an Intermediate helicopter with the original light twin economics. Effectively knocking on the door of operators tempted to operate the EC145. It is claimed that when compared with typical JAR29 standard types like the 9 seat EC145 and Bell 430 the Grand can return hourly costs at least \$100 dollars lower.

Internal space has been increased but not enough to alter the 6/7-seat specification. Although it is not very obvious the front fuselage has been bulged and faired from just behind the rear doorframe to widen the cabin area forward appreciably. Whilst there is no increase in height, the wider cabin is more capable – particularly in the EMS role where operators wish to regularly carry two patients. At 2.3m/7ft. 7in the longer unobstructed cabin is accessed by a wide sliding cabin door 1.4m/4ft. 7in on each side. AgustaWestland have not yet issued all the specs of the newcomer so it is difficult to be certain where the extra dimensions came from.

On the face of it the Grand is a Power with increased performance and a weight limit taking it into JAR 29 territory. It can be expected that the other light-twins [EC135 and MD900] will make similar announcements in the near future. Whether the slightly increased interior space will be sufficient attraction remains to be seen.

Microwave Downlinks

Focus on your flying, not your downlink!

NEW!

Digital *SKYLink*
and *Heli-Coder*





Live Video Downlinks!

The BMS Downlink System simplifies and increases air communication with ground personnel. Its ease of operation allows pilots to focus on what's really important, their flying.

Multiple Receiver Options:

- SKYLink
- Ground Based
- Portable Briefcase Receiver



TAA-101 Helicopter Antenna Actuator System

In Europe, contact:



CAM GmbH Data Products

Tel: +49-8105-372330
Fax: +49-8105-372333
E: gareth.davies@cam-comp.de

In The United States, contact:



BMS Broadcast
Microwave
Services, Inc.

www.bms-inc.com

Tel: +1-858-391-3050
Fax: +1-858-391-3049
E: dept500@bms-inc.com

Pratt & Whitney Canada Corp. (PWC) announced that a growth version of the PW200 series turboshaft engine has been selected to power the Agusta Grand helicopter. Designated the PW207C, this engine is one of the higher power members of the PW200 engine family that already powers almost all new generation light twin helicopters. Over 1000 PW200 engines have been delivered to date. PWC recently marked the 1,000,000th operating hour of its PW200 turboshaft engine fleet, further confirming the engine series' leader position in the world light-twin helicopter market

The **Boeing Company** presentations at Farnborough International are usually outside the remit of this publication – and indeed one of its main products was the 7E7 Dreamliner. It may be some time before the 7E7 enters the realms of another sector of Boeing's marketing at the show - a Multi-mission Maritime Aircraft programme. A Model based on the 737.

Representatives from the US Navy and Boeing were briefing on the Multi-mission Maritime Aircraft programme that the Navy recently awarded to Boeing.

Several Boeing-built aircraft were on display at the show, including the F/A-18F Super Hornet, AH-64D Apache Longbow helicopter and F-15C Eagle, which are scheduled for daily flight demonstrations. Other Boeing products scheduled to be on static display include the F-15E Strike Eagle, C-17 Globemaster III, the Standoff Land Attack Missile, Harpoon and a full-scale mock up of the Joint Unmanned Combat Air Systems (J-UCAS).

www.PoliceAviationNews.com

A wealth of on-line resources





Piper Group Plc, one of Europe's leading aerospace and defence Technical Information Services companies and Xybernaut were on display together at the show.

Xybernaut and the Piper Group have been working together for several years to combine Interactive Electronic Technical Publications (IETPs) viewing technologies with mobile/wearable computers. Piper Group's expertise in the technical information field has led to the design and development of a wide range of editing, publishing and viewing applications -- many tailored specifically for the needs of the aviation and

aerospace industries.



Piper Group Plc have been operating since 1982, and is now a European field leader in 21st century technical information solutions for the aerospace and defence sector. Piper Group's editing, publishing and viewing applications are in use worldwide.

Xybernaut Corporation is the leading provider of wearable/mobile computing hardware, software and services; bringing communications and full-function computing power in a hands-free design to people when and where they need it. Headquartered in Fairfax, Virginia, Xybernaut has offices and subsidiaries in Europe (Germany) and Asia (Japan and China).



Powervamp again had the 28-volt DC power contract for the static park and the new "Business park" feature. In addition they supplied all the Air-coolers for many aircraft and the Diesel generators to power the coolers and about 30 of our PS80 28-volt power supplies.

Powervamp co-ordinated the courtesy visit of key members of the staff responsible for the ground handling of the Paris Air Show – where Powervamp had a similar contract in 2003. The idea was that they might view the Farnborough operation and meet their opposite numbers at ATC Lasham –the company responsible for Ground handling at Farnborough.

In the weeks prior to the event they were very busy with the rental, installation and wiring up of all this kit and the running of it including some diesel GPU's from Houchin on the 115 V 400Hz side.



Dornier 328JET

Raytheon Company highlighted its global capabilities as an integrator of mission systems during this year's Farnborough Air Show.

Raytheon expertise in airborne surveillance and reconnaissance systems, network centric systems, unmanned airborne

systems; weapon systems and military pilot training systems were profiled at the show. Representatives from Raytheon and the UK Ministry of Defence highlighted recent successes of the Airborne Stand-Off Radar (ASTOR) system.

With five aircraft on display at the Farnborough Airshow, **Bombardier Aerospace** showcased its remarkable success in launching products in both the regional and business aviation markets.

Farnborough marked the international debut of the super-large Bombardier Global* 5000 business jet with a new state-of-the-art interior, expanding the company's already diversified range of business jets. The new 5000 is the world's fastest intercontinental super-large business jet, has set a new standard in its class by flying non-stop from San Francisco to London, in an impressive demonstration of its capabilities. Serial number A11-002-9130, a flight test aircraft newly equipped with a complete interior for cabin-related function and reliability tests, it departed San Francisco International Airport at 21:15 PDT to arrive at the Farnborough Aerodrome at 14:44 GMT.

In addition to a three-person crew, the test aircraft featured the equivalent of an eight-passenger, 1,600-pound (726-kg) payload, with a maximum takeoff weight of 87,700 pounds (39,780 kg). It climbed directly to 41,000 ft (12,497 m) and flew a total of 4,816 nautical miles (8,919 km) while cruising mostly at Mach 0.85 (562 mph; 904 km/h). The only time it slowed down occurred upon entry into European airspace.

Other Bombardier aircraft on static display at the Business Aircraft Park included the latest of a classic line, the LearJet* 40, and the super midsize Bombardier Challenger* 300 business aircraft as well as the new generation Bombardier Q400* turboprop and the 70-seat Bombardier CRJ700* regional jet.

Bell Helicopter is reporting significant interest in its new Bell 210 Medium Utility Helicopter since Bell Chief Executive Officer Mike Redenbaugh announced earlier this year that the company would develop and manufacture the aircraft. The new aircraft will provide a significant increase capability over



5000



comparative models at greatly reduced direct operating costs.

Much of the Bell 210 is based on the highly successful Huey II programme. Many of the modifications and upgrades that result in the Bell 210 are the same as those in the Huey II. The success of the Huey II, with more than 100 conversions currently flying Worldwide, confirms the viability of the certified Bell 210 in the US market. The primary differences between the Bell 210 and the Huey II are the inclusion of different actuators, nose assembly and a new electrical system and the receipt of FAA certification. The Bell 210 has also attracted the attention of the U.S. Army. There are many missions now supported by the US Army with ageing assets that are marked for reduction in the coming years that the Bell 210 could more economically perform. Plans call for certification to be complete in mid 2005.

The defence unit of San Diego-based **Cubic Corporation** highlighted its tactical common data link (TCDL), at the exhibition. Cubic's TC DL is used for high-speed, secure transmission of intelligence data between manned or unmanned aircraft sensors and ground stations.

Three recent flight tests demonstrated the high quality air-to-ground transmission capability and interoperability of Cubic's TC DL. In three separate tests this year, sponsored by industry partners and government agencies, Cubic's digital data link was used for multibeam communications, transmission of rocket telemetry data, and real-time video streaming during a counter terrorism training exercise. The company's Web site at www.cubic.com

In the same vein, Israel based Tadiran Spectralink; part of the **Elisra Group** introduced a new datalink system that again seeks to use miniature displays. A small screen [around 4 inches by 3 inches] is strapped on to either the wrist or – in the case of aircrew – the knee and accepts downlink images. Web: www.tadspec.com

Ed: Something vaguely familiar with this product. Cambridgeshire Police marketed a slightly smaller wrist mounted display that – in spite of commercial marketing – just failed to sell in sufficient numbers to prove long term viability. Like the new Israeli gear it sold but the niche market was very limited.

DUBAI Helishow DUBAI 2004

HELISHOW 2004

International Helicopter Technology & Operations Exhibition

Worldwide enquiries
 Ms. Julia Cuthbert, D.S.
MEDIAC COMMUNICATIONS & EXHIBITIONS - UK
 Tel: +44(0)1293 823779
 Mobile: + 077 34 563324
 Fax: +44(0)1293 825394
 E-mail: cuthbert@mediacom.com

Organized by

MEDIAC COMMUNICATIONS AND EXHIBITIONS L.L.C.
 P. O. Box 5190, Dubai, U.A.E.
 Tel: +8714 2892004, Fax: +8714 2891286
 E-mail: mediac@emirates.net.ae
 Website: www.dubaihelishow.com

Supported by:

8th-9th December 2004, Dubai Airport Expo, Dubai, United Arab Emirates

Deja vu

Established show organisers continue to offload non-core aviation shows into new hands. The latest 'victim' is an avionics exhibition born only a short while ago. **Avionics Expo Europe 05** 'The annual meeting place for the worldwide aviation electronics community' is to be held between March 30-31st 2005.

The inaugural Avionics Expo was held in Wiesbaden, Germany in November 2003, attracting avionics professionals from all over the globe. Further to detailed market research following the last event the Avionics community is said to be backing the decision that the next edition should be held in the more central and prestigious Amsterdam exhibition centre (THE RAI). The Avionics show was created by demand from the Avionics community to have their own event and the desire of suppliers who were frustrated by having to previously exhibit at many more general and unfocused Aviation or Electronic events, in order to meet this specialised community of professionals.

The new organisers The Simply Group Ltd [+44 20 8542 9090 www.simply-events.com], dates and location were subject to intensive lobbying at Farnborough. www.avionics05.com

Like most of the helicopter manufacturers – except AgustaWestland - **Sikorsky** helicopters played a low-key role at the show. The main exhibit was United Technologies. The company was able to announce two further orders for its S-76 helicopter.

The Fisheries and Maritime Matters Department of the Xunta de Galicia in Spain has purchased two S-76C+ helicopters equipped for the SAR role. Aircraft deliveries are planned for next spring.

Xunta de Galicia's SAR provides coastguard coverage off northwest Spain. The service in the past has leased its rescue and maritime patrol helicopters, but selected the S-76C+ as the first helicopter type it will own. The multi-mission service made the purchase to maximise the cost/efficiency ratio.

The Xunta's main missions are SAR over land and sea as well as fisheries surveillance and inspection. Secondary missions include support of Emergency Medical Services, Civil Protection, police and military activities and general logistics work.

The S-76C+ offers the customer dash speeds of more than 155 kt, even when fully equipped for SAR. The aircraft is also capable of rescues at ranges of up to 235 nm.

Equipment aboard the all-weather IFR-equipped aircraft includes a four-axis AFCS, auto approach to hover and departure with search patterns, FLIR, digital video recorder, NiteSun searchlight, rescue hoist with back up clip-on hoist HUMS, weather radar, moving map display, GPS and a flotation system.

An updated version of the proven S-76 helicopter, the S-76C+ combines the rugged S-76B airframe with the more capable, FADEC-controlled Turbomeca Arriel 2S1 engine. It offers improved single engine and hot-high performance while retaining the efficient, long-range cruise of the earlier models.

Operating in 44 countries by 192 operators, more than 540 Sikorsky S-76 helicopters have accumulated over three million flight hours with an extraordinary safety record, while providing the best combination of operating costs and performance in their weight class.

Sikorsky may well be challenged selling its home grown S-92 helicopter to the President of the United States but it has proved the first of the contenders to have succeeded in making the type a Presidential Transport. They announced the sale of two S-92 helicopters to Turkmenistan for presidential use. The helicopters will be delivered in the 2005-2006 timeframe.

Upon inking the \$53M deal in Ashgabat on June 28, Turkmenistan President Saparmurat Niyazov noted the reliability and quality of Sikorsky helicopters, a staple in its aviation fleet since the country purchased its first Sikorsky helicopter in 1996.

Predictably – with that other competition against the US101 well in mind Jeff Pino Sikorsky Vice President of Marketing and Commercial Programs said of the sale 'The S-92 is a natural fit for VIP presidential transport. It was designed from the outset to meet the most rigorous safety standards in the world.'

The contract brings the total number of S-92 aircraft sold to 27. In addition to the confirmed sales, Sikorsky also has options and deposit agreements for 30 S-92 aircraft. Other customers

include Petroleum Helicopters, Inc. (PHI); Norsk Helikopter of Norway, and Canada's CHC Corporation and several VIP customers, attesting to the aircraft's versatility.

Sikorsky's Farnborough week was finally crowned when they were able to announce that the Canadian Government had dug themselves out of their quandary over replacing their venerable Sea King fleet by choosing the S-92 and doubling sales of the type at a stroke. Some industry commentators have already asked whether Sikorsky can produce the operational airframe on time.

In the face of Western foreigners like BAE Systems updating Russian designs of an earlier age, the **Mil Moscow Helicopter Plant** continues to promote the venerable Mi-2 helicopter. The latest version is the Mi-2A New Generation, offering upgraded engines, variously from local sources or two Turbomeca Arrius 2. The helicopter looks and weighs the same; all the improvements are performance related. The hovering ceiling, OGE increases dramatically from 1,000 m to 3,280, and there are other less dramatic improvements across the spectrum.



Swiss based **Pilatus Aircraft** brought their complete range to Farnborough. Unfortunately their recently launched PC-12 MRA Spectre surveillance aircraft – the successor to the Eagle – was not brought along. There is genuine European interest in the concept but the age of problems in certifying the single engine PC-12 SPIFR in European airspace are holding it back.

Currently this multi-role Special Mission variant is a US led market type operating successfully with 'a number' Federal customers including US Customs under a local STC.

Fly straight to the point with Observer MkII

- HIGHLY DETAILED MAPPING
- INTUITIVE OPERATION
- DATA STORAGE MEDIUM FOR PAPERLESS COCKPIT
- MULTIPLE CONTROLLING DEVICE OPTIONS
- MULTIPLE DISPLAY OUTPUTS
- ALLOWS VERSATILE & FLEXIBLE INSTALLATIONS
- FLIR, PILOT MFD, DF & DATALINK INTERFACES



Control Panel



Processing Unit



Camera Point of Impact/Interrogation

Bendix/King Avionics
Honeywell

CLEARLY SUPERIOR
IN-FLIGHT MAPPING

Bendix/King Europe 5 The Old Granary Bexgrove Chichester West Sussex PO16 0ES UK
Tel: +44 (0)1243 783763 Fax: +44 (0)1243 783992 email: john@skyferco.co.uk www.bendixking.com

**The EC135 Advanced Police Helicopter,
Tried and proven outstanding throughout the UK**

M'ALPINE HELICOPTERS
 **M'Alpine Helicopters Limited**
 Oxford Airport, Kidlington, Oxfordshire, OX5 1QZ.
 Telephone: +44 (0) 1865 841188 Fax: +44 (0) 1865 842827
 E-mail: sales@mac-helicopters.co.uk
 Website: http://www.eurocopter.co.uk



The Fairchild/Dornier 328JET is dead. Long live the Avcraft Dornier 328JET. After a traumatic couple of years this good looking high-wing twinjet looks set to return to the market in some numbers. No-one ever discounted the quality of the original 328 – over 80 were sold before the programme hit the rocks - it was just a case of the money running out on the project.



AvCraft chose to take over the project after they decided it was marketable the best value in its class – either as a sub-34 seat regional airliner or a large cabin corporate jet. Superior engineering, advanced technology, and unmatched operational efficiency, they were convinced that the ailing Dornier 328JET offered the largest volume per dollar you can purchase.

Into the future, AvCraft are already pointing out that current users are already using the 328JET [Air Dienst, Tyrolean Air Ambulance and ADAC] in the air ambulance role and they are already promoting it as a potential maritime patrol type. A jet replacement for the class of aircraft currently serving with such as US Customs and Australia's Coastwatch [DHC-8 Q200] and the Italian Customs and Coastguard [ATR42 Surveyor].

AvCraft are based in Leesburg Virginia www.avcraft.com

Alenia continues to market the type against a wide range of competitors, both the new and the long standing.



Talking of which - Although it is no longer a new airframe, the Italian **Guardia di Finanza** [GdF or Customs] had one of their pair of ATR 42 twin-props parked in the static.

In a fleet over 100 strong the GdF operate two examples of the ATR on a range of search missions throughout the Mediterranean Sea. In 2003 the GdF were assigned a patrol responsibility throughout the Mediterranean Sea, a major task for just the two long-range aircraft. A primary role for the 6-hour missions undertaken deterring smuggling of all kinds does not stop the crews being called out to undertake other tasks including SAR.



Up front the pilots cockpit is primarily a conventional commercial layout but a few additional display monitors belie its special missions.

The main cabin contains the prime mission suite of workstations and visual observation blister windows. Primary role equipment sensors offer no surprises – radar, a Wescam FLIR/tv turret and an SX-16 searchlight in a special external fairing are all

familiar tools for the job. The latter is relatively rare in a fixed wing environment.



Dino Marcellino

Some additional details have come to light from manufacturer **Piaggio** about the P166 aircraft noted at Genoa and illustrated in last month's issue of PAN. The aircraft are not new. Two of the existing fleet of ten P166 has been returned to the manufacturer for refurbishment and systems upgrade. This pair will return to GdF service in due course and will be subject of trials to decide whether the other eight in the fleet should likewise be upgraded by Piaggio.

Broadly in line with European practice the GdF helicopter fleet is slowly being upgraded across the board to twin-engine power. It might be assumed that as the law enforcement air fleet [Carabinieri, State Police and GdF] are all military registered public aircraft they will not fall foul of the current legal arguments about competition within the EU [see last month]. If so, there seems no reason why such contracts might stay with Italian manufacturers. [IPAR/Piaggio/GdF 2003]



Still to make their mark in most markets – particularly civil – UAVs were to be found in virtually every hall and liberally spread across the static parks outside.

In Hall 1 there was a UAV Pavilion concentrating on presentations by a range of manufacturers and representatives of airframes, downlink and other electronics.

Among the crop was Canadian company **MicroPilot** – producers of a tiny autopilot for equally small UAV airframes. So far these are not the really tiny articles reported to be the size of a matchbox – but the Windows based autopilot itself is already down to that size.

MicroPilot claim that their MP2028 is the World's smallest UAV autopilot – it weighs just 28 grams and is 10 x 4 cm Further details at www.micropilot.com or contact Lisa Shaw at lshaw@micropilot.com

Elbit Systems Ltd. has announced that its wholly-owned subsidiary, EFW Inc., based in Fort Worth, Texas, is providing the Department of Homeland Security, Customs and Border Protection (CBP) its Hermes 450 Unmanned Air Vehicles (UAV) along Arizona's southern border as part of the Arizona Border Control Initiative (ABCI).

Under the CBP lease contract, EFW and Elbit Systems provide UAVs, ground control stations, operational crews and support personnel for UAV flight support of border patrol operations. This initial pilot programme, which is focused on the Arizona border with Mexico, may be

extended into next year and may be expanded by CBP to include the northern US border with Canada.

New Technology Management, Inc. (NTMI) has also issued a release relating to its part in the same project. Working to support the Thunder Mountain Evaluation Center at Fort Huachuca, Arizona, NTMI is helping to build and maintain the ground relay systems that transmit and digitally record these images for CBP.



The Hermes 450 UAV is equipped with electro-optical sensors and communications payloads providing day and night imagery.

It is equipped with a communication capability used by ground control stations to communicate, which is a law enforcement officer safety and a communications/co-ordination requirement.

The Hermes 450 is a single engine system with advanced composite structure and optimised aerodynamics. Advanced avionics enable autonomous flights and precise GPS navigation.

The UAV is equipped with sophisticated communication systems transferring imagery in real-time to ground control stations.

Specifications

Up to 20 hours of flight endurance

Reaches ceiling of 18,000 feet (operating at approximately 9,500 feet)

Maximum air speed: 95 knots (125 miles per hour)

Cruise speed: 70 knots (91 miles per hour)

Built as a high wing, V-tail optimal aerodynamic configuration

Light composite structure

Redundant flight computer avionics and power supply

Fully autonomous flight with in-flight redirection

This is the first civil use of UAVs in an operational environment in the USA. In mid-2003 a Joint UAV test unit was set up by the US military. It too was contracted with EFW Inc. to operate the Hermes 450 in support of test operations based out of NAS Fallon, Nevada.

The contract was awarded by SENTEL Corporation with flight services performed jointly by Elbit Systems' subsidiaries, EFW and Silver Arrow, at several U.S. locations including NAS Fallon.

As of early July 2003, the system had already conducted more than a dozen highly successful missions in support of U.S. Navy carrier air wing training and JUAV test and evaluation exercises.

When the U.S. Border Patrol began to fly the Hermes 450 UAVs, the deployment raised questions about collision avoidance. In addition to individuals there were expressions of disquiet from such as AOPA. They have asked the FAA to establish an industry committee to address UAV operations outside of restricted airspace and to develop aircraft certification standards dealing with collision avoidance.

The USBP state that collision-avoidance concerns underwent an extensive review prior to the deployment, and precautions are in place. The approval process requires that the UAV operator satisfies the FAA that the UAV provides an 'equivalent level of safety' compared to a manned aircraft. The UAVs now are flying pre-programmed routes that are filed 24 hours in advance with airspace officials. [AvWeb]

Tactical Aerospace Group (TAG) made its first public showing of the new composite TAG-M65 and TAG-M80 UAV helicopters in Paris at the UAV 2004 International Conference and at the Eurosatory 2004 International Military Exposition last month.

The new helicopters are unique in their construction and design with a completely composite airframe that is a first for VTOL UAVs. The composite structure accounts for the extremely lightweight and strength of the aircraft and allows for a very significant advancement in performance, payload and endurance for UAV helicopters.

The TAG-M65 and TAG-M80 are in full production and additional versions are available for civil and commercial users such as law enforcement, inspection services, utility patrol, agricultural interests as well as film and media applications.

In the civil arena the company list uses for the type as including Surveillance, Response, Border and coastal Patrol, SAR and Fire Patrol



30th - 31st March 2005 | Amsterdam RAI

www.avionics05.com

SUBMIT ITEMS FOR PAN by the 23rd of the month before publication to E-mail [Editor](#) or [Police Aviation](#)
HOW TO SUBSCRIBE (OR UNSUBSCRIBE)

Police Aviation News is provided in electronic form.

1. The e-mail edition is available on-line free of charge. To subscribe to the notification system, send an e-mail message to [Editor](#) giving your identity and address. Electronic delivery of complete editions is available upon payment.

2. To stop receiving the E-mail notification, send an E-mail message to the same address with your identity and the e-mail address you receive the notification on.

COPYRIGHT AND DISCLAIMER: All contents copyright 2004 International Police Aviation Research/ Police Aviation News except where indicated in individual items. All rights reserved. For further information, including permission to reprint or reproduce, please e-mail or telephone IPAR as above.

The information and data included has been obtained from sources which we believe to be reliable, but the publisher makes no warranties or representations whatsoever regarding accuracy, completeness, or adequacy. *Opinions expressed* are based on interpretation of available information, and are subject to change.



Alenia



EADS Security



EH101

